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ORIGINAL ARTICLES.

INJURIES OF THE JOINTS, WITH REPORT OF ELEVEN CASES TREATED AT THE COUNTY HOSPITAL.*

By G. A. White, M. D., Sacramento, Cal.

Few fields in the domain of surgery furnish more food for anxious thought than that of injuries of the joints. Successful treatment in this field of practice is manifest evidence of surgical skill and no small degree of great good fortune, whilst failure in a single instance is liable to lead to disastrous consequences, and may possibly forever ruin a fair reputation. In a suit for damages which too often follows such failure, "twelve good men and true" may provide an impecunious but enterprising patient with luxuries for life at the expense of the unfortunate practitioner The annals of medical jurisprudence are filled to repletion with cases of alleged malpractice, wherein the surgeon is sought to be mulct in damages for failure to obtain perfect results in the treatment of joint injuries.

I recall to your mind the unhappy experience of Dr. Graves, of Petaluma, with which you are all familiar. In a suit for damages against Graves it was wickedly averred by the plaintiff who had sustained an injury near her ankle joint that defendant, by his neglect and ill-treatment of her case, had caused permanent and irreparable deformity to this articulation. Two professional rivals, of little reputation, and less professional honor, desiring to ride into notoriety over the ruin of Dr. Graves, unblushingly sustained the averment of plaintiff. Aided by mercenary but cunning counsel, a sympathetic jury was found which directed that Dr. Graves pay over to a charity patient the savings of a lifetime ! And this in spite of the positive evidence of eminent experts who testified on Graves' behalf. It required the united efforts of

* Read before the Sacramento Society for Medical Improvement.

the profession of the State to prevent the consummation of this outrageous verdict. This Society, to its honor be it said, took a leading part in saving an innocent medical brother from wicked spoliation.

In the light of experience derived from this case, prudent surgeons will do well to warn patients with joint injuries that our best efforts at treatment are sometimes futile and that impossible results cannot be obtained. Before considering the subject matter of this paper it may not be unprofitable to briefly review the anatomy of joint structures.

There are three kinds of joints, viz: synarthrosis or immovable, amphiarthrosis or mixed, and diarthrosis or movable joints. The diarthrodial joint is of greatest interest to surgeons for obvious reasons, and will almost exclusively engage our attention to-night.

Designed to facilitate locomotion and give grace to the various movements of the body, it is of primary importance that the normal functions of the joints be not interfered with. As no physical effort is possible without the concurrence of joint movement, as certain joints—the costo-spinal—are in perpetual motion, and as others are necessarily subjected to great violence, they have been constructed of such materials as admit of a maximum of motion with a minimum of friction and without producing pain. Bony tissues are feebly supplied with blood and have comparatively few nerves; ligaments are composed of white fibrous tissue and have fewer still, while interarticular cartilages have none. These materials, therefore, are admirably adapted for joint building. In addition there is the synovial lining membrane, whose function is to secrete a lubricating fluid. It serves another and most important purpose: it spreads the mantle of its protection over less sensitive structures and does duty as a perpetual picket guard against invasion from without. Bone and ligament may each withstand violent assaults; articular cartilage may indeed be destroyed by the ravages of gout without exciting serious concern; but let a foreign foe invade the synovial territory and a fierce battle at once ensues with such weapons of pathological warfare as heat, pain, redness and swelling.

Barwell, in his Treatise on Diseases of the Joints, says:—"To our idea of a diarthrodial joint are necessary a distinct cavity, lying between and separating the bones of the articulation; also at least two pieces of cartilage interposed between

these bones; each piece of cartilage lining the end of each bone is not continuous, but in contact with the other. The gliding, rolling, or twisting movement must take place between these cartilaginous surfaces, kept moist by a secreting membrane, which closes the cavity of the joint. The essential constituents, then, of an arthrodial joint are: 1st, The bones, which are in apposition, but separated from each other by a cavity; 2d, The cartilages of incrustation; 3d, The synovial membrane. But, besides these are: 4th, Ligaments binding the bones together; 5th, Frequently an inter-articular fibro-cartilage."

In his article on Injuries of the Joints—"International Encyclopedia of Surgery," Vol. III, Edmund Andrews says that "injuries of joints derive their greatest importance mainly from two circumstances, both of them mechanical in their nature: 1st, The complexity of their structure, which renders a slight displacement of parts, or adhesion of surfaces, fatal to their perfect mechanical action; 2d, The presence of the synovial cavity, which, on exposure to the air, receives septic germs, and becomes a reservoir filled with putrid secretions, which both poison the whole system, and locally, cause caries of the bones."

Injuries of the joints may, for convenience, be classified as follows: Contusions, sprains, dislocations and all varieties of wounds, including compound dislocations, compound fractures and gunshot wounds.

A *Sprain* is a wrench of a joint with such force that the capsular ligament suffers overstrain or perhaps laceration, or a tendon may be ruptured, the vessels about the joint may be torn but the bones are not dislocated. The hinge joints of the ankle, knee, elbow and wrist suffer from sprains more than other large joints. The thumb, fingers and toes are also frequently sprained, but owing to their smaller size are more amenable to treatment.

Dislocation.—Gross defines a dislocation as follows: "A dislocation or luxation is the sudden and forcible removal of one articular surface from another, either as an effect of external violence or inordinate muscular contraction; or a diseased condition of the component structures of the affected joint." Large volumes have been written on this very important class of injuries alone. Indeed, books of considerable size exist, descriptive of the injuries of a single joint. It is not possible therefore to include a description of all

dislocations within the limits of this paper, the full consideration of any one of the more important luxations affording ample matter for one evening's work. What has been said with reference to dislocations applies with greater force to fractures. I shall not, therefore, occupy your time with even a condensed description of these divisions, but proceed to cite a few instances of joint injuries that have been treated at the County Hospital during my service.

Case I.—A young German, aged twenty-four, was brought to the Hospital at three A. M., Aug. 2, 1885, suffering from a gunshot wound of the left shoulder. With a friend he had been raccoon hunting the previous night. He entered a thicket on all fours, and discovering the game, called to his companion to pass him the shotgun, which was promptly done, the muzzle foremost. The gun exploded, and the entire charge of shot entered the young man's shoulder, from a distance of only a few feet. The soft parts were badly lacerated, and the bones of the shoulder joint, more especially the head and upper end of the humerus, were very much comminuted. The box of bony fragments before you gives evidence of the extent of the injury. The brachial artery was not injured, hence I thought the case was a fair one for resection, instead of amputation. Assisted by Dr. Nelson I operated and dressed the wound with antiseptic precautions. A few days later the case promised a favorable termination. Owing to faulty dressing, as I now believe, the patient suffered from acute septicæmia, but ultimately made a complete recovery. November 2d, three months after the accident, he went to work handling wheat sacks in the Phœnix flour mill. December 5th he applied to me to remove a fragment of bone which had exfoliated from the acromion process of the scapula, or rather the stump of that process. No other complication arising, the patient returned to his home in Kansas disgusted with California "coon hunting," but eminently pleased with the results of antiseptic surgery. Six months later, in a letter to a friend in this city, he stated that he could lift seventy pounds weight with his crippled arm. I exhibited the case at a meeting of the Society shortly before he was dismissed from the Hospital. It was then doubtful how much use could be secured to the limb, and I now take pleasure in reporting the successful issue of the case.

In dislocations of the shoulder joint, if the case is seen early, reduction is easily effected by proper manipulation and extension, especially when aided by anæsthesia. In dislocations of long standing it is vastly different. Here we have to contend with the results of adhesive inflammation, and perhaps even joint destruction. In a few obstinate cases our strongest efforts are made in vain. The following is an illustration wherein attempts at reduction met with humiliating defeat:

Case II.—On the 4th of December, 1885, Dr. France, of Rio Vista, brought to the Hospital a Welshman, aged sixty years, suffering from a subcoracoid dislocation of the right humerus and a dorsal dislocation of the right femur. This singular accident, or rather double dislocation, was produced in the following manner: While driving a fractious team the man was thrown from his wagon and rolled down a steep bank; while rolling, one of the horses fell upon him. The patient was without treatment for an indefinite number of days. Attempts at reduction made by Dr. France being futile, the case was brought to me some six weeks later. Drs. Cluness and Huntington were present when reduction was attempted. We first tried manipulation and extension; failing in this a roller towel was fastened around the arm by a clove hitch, and forced extension and counter extension tried; prolonged efforts were made with the patient fully etherized, but our combined forces were doomed to defeat. Owing to the man's age and the condition of his arteries, and in view of the fact that considerable contusion of the parts had resulted from the violence of the manipulation, it was resolved not to resort to the aid of pulleys at that time, but to defer it for some days later. Reduction of the dislocated hip was easily accomplished by manipulation, after Bigelow's method. Grateful for small favors, the Doctor returned with his patient to Rio Vista the following day, and I am ignorant of the subsequent history of the case.

It may here be stated that many persons with unreduced dislocations of the shoulder joint have fairly useful arms and are frequently capable of performing ordinary manual labor. I have seen several such cases. At present there is an old man in the Hospital with a so-called false joint, and another whose arm was broken at the elbow more than fifty years

ago, with resulting non-union. A more than usual interest attaches to this case from the fact that he was a patient of Sir Astley Cooper.

Injuries to the elbow joint are of common occurrence, and the archives of the Hospital are full of such accidents.

Case III.—A woman, aged thirty-five, was thrown from a wagon and sustained a compound fracture of the condyles of the humerus, with dislocation of the ulna, she was brought to the Hospital. This was in 1878, before antiseptic surgery had developed into its present perfection. Carbolic acid was then the sheet anchor of antisepsis. Under its use the woman made a good recovery, with a useful joint.

Case IV.—A farm laborer, whose arm was caught in a mowing machine, laying open the elbow joint and fracturing the ulna, made a good recovery under antiseptic dressings.

Case V.—A boy, aged eighteen, was brought to the Hospital with a gunshot wound of the wrist, that did not end so happily. Destructive synovitis developed, which necessitated amputation. The operation was performed with the assistance of Dr. G. L. Simmons.

Case VI.—A girl, aged eight, whose ankle joint was laid open by a mowing machine, the tarsal bones being much comminuted, recovered with a useful joint under antiseptic dressings, without an unfavorable symptom.

Case VII.—A boy, aged sixteen, of hæmorrhagic diathesis, after a slight contusion of the knee joint, was brought to the Hospital with the knee badly swollen. The joint was tapped, and more than a pint of dark blood discharged. The wound was irrigated with bichloride solution and closed. Under antiphlogistic treatment with pressure, the case made a fair recovery, but there was some stiffness for a year.

Case VIII.—A sailor, aged thirty-eight, of rheumatic diathesis, developed destructive synovitis after a slight injury to the knee. Excision was unsuccessful, and amputation became necessary. Owing to persistent ostitis, reamputation was done before the stump healed. I saved the end of the amputated stump of the femur, and you can see the condition of it. It is covered with small osteophytes, which, acting as irritants, retarded the healing process.

Case IX.—An officer, acting as constable's keeper at a

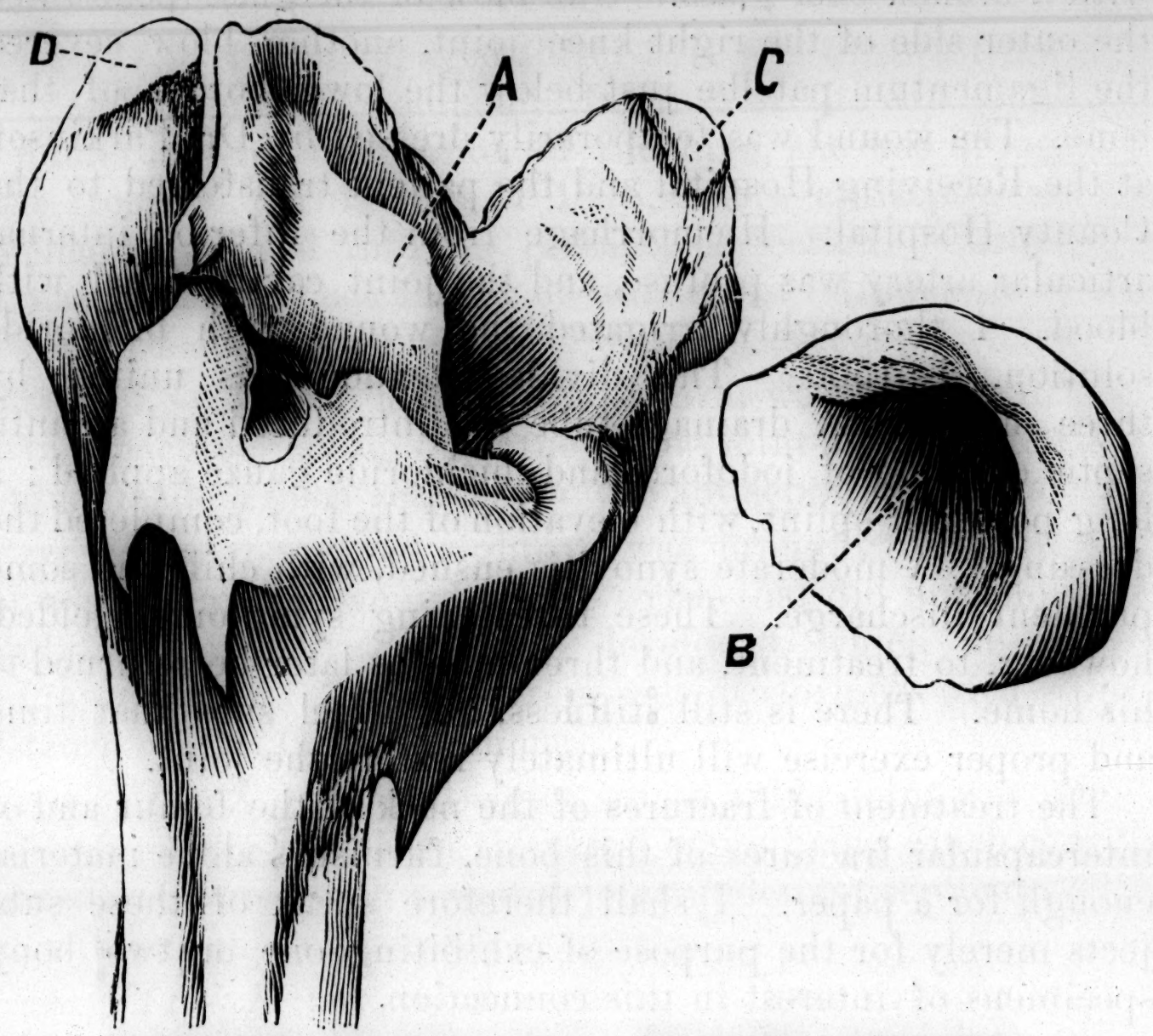
hotel on Front street, was assaulted by the proprietor and another man; during the struggle the officer was thrown upon the floor, and while being held down by one of the assailants, the other struck him several blows upon the knee with a broken beer glass. One blow of the glass penetrated the outer side of the right knee joint, another blow severed the ligamentum patellæ just below the lower border of that bone. The wound was temporarily dressed by Dr. Parkinson at the Receiving Hospital and the patient transferred to the County Hospital. Hæmorrhage from the inferior internal articular artery was profuse, and the joint cavity filled with blood. I thoroughly irrigated the wound with bichloride solution, 1 : 1500. The divided tendon was united by three sutures. A drainage tube was introduced and an antiseptic dressing of iodoform and bichloride gauze applied ; a long posterior splint, with elevation of the foot, completed the dressing. A moderate synovitis ensued, with chill and some purulent discharge. These threatening symptoms yielded, however, to treatment, and three months later he returned to his home. There is still stiffness, but I feel sure that time and proper exercise will ultimately restore the joint.

The treatment of fractures of the neck of the femur and of intercapsular fractures of this bone, furnishes alone material enough for a paper. I shall therefore speak of these subjects merely for the purpose of exhibiting one or two bony specimens of interest in this connection.

Case X.—The first case was that of a young man, aged 36 years, who sustained a fracture of the neck of the thigh by falling from a pile of lumber. There is nothing very peculiar about the case except that some doubt existed as to whether or not the fracture was intracapsular. Two years later this patient died of phthisis in the County Hospital, and the bone before you, which I obtained at the autopsy, clears up the doubt. It also shows that good union took place.

Case XI.—The other case was that of a common drunkard, aged 52, who, in 1874, slipped upon a champagne cork while in the act of rolling a ball in a bowling alley. A few hours later he was brought to the Hospital and I made a diagnosis of intracapsular fracture of the femur. He was treated in the usual way with extension and counter-extension and in due course of time recovery followed with some

shortening, but a useful limb. During the month of January last the man died in a saloon. I made a post mortem examination for the Coroner, and secured the specimen which I here exhibit. The recent specimen was an excellent example



Left Femur, Posterior Aspect. (Three-fifths actual size.)

A—Articular surface on stump of neck, for head of bone, showing to the right, false socket. B—Head of bone, neck absorbed, showing cavity of reception, and to the left a hooked process for false socket. C—Smooth surface on new bony growth, which articulated with ischium. D—Great trochanter.

of ligamentous union; this has been destroyed during the cleaning process, and we now have the shaft of the femur, the upper end covered with extensive exostoses and the separate fragmentary head of the bone. A typical example of intracapsular fracture with fibrous union as the result of treatment.

I shall not weary you with a further citation of cases of joint injuries. It is true I have but briefly reported a few instances of this class, yet sufficient, I hope, to awaken interest in this important field of surgery. It is conceded that under the old system of wound treatment many brilliant examples of resections and joint surgery are to be found, but to Lister

we are indebted for a much greater ratio of success, for in no class of wounds has antisepsis achieved so many and such signal victories as in wounds of the joints.

CLINICAL MEMORANDA.

STRAPPING IN MUSCULAR SPRAINS.

In cases of sprained back, caused by falls or in lifting, where the muscles, particularly in the lumbar region, have been wrenched, I find that shingling the parts with adhesive plaster gives great relief. The plaster is cut in strips two or two and a half inches in width, and of sufficient length to cross the back at an angle of forty-five degrees, extending from the sixth rib above to below the crest of the ilium. The strips should overlap for half the breadth as when strapping in cases of pleurisy. The first strip goes from left to right, crossing the spine about the seat of pain, the second from right to left, crossing the spine at the same point. This will form an **X**. The third runs from left to right, half overlapping the first strip, and so on until the painful region is well covered; then put one or two strips transversely. I find that the warmth of the plaster is soothing, while, at the same time, it keeps the parts as much as possible at rest and allows the patient to exert himself without much pain. The strapping should be left in place for several days after the pain has ceased.

I was led to adopt this method by observing the instant relief afforded in the case of a printer, who, when carrying a "form" to the press, slipped, severely wrenching the lumbar region of the spine. When seen immediately after the accident, he was unable to move without great pain. The application of the strapping afforded great relief, and enabled him to resume work in a few days.

T. W. SERVISS, M. D.

Oroville, Cal.

SURGICAL MEMORANDA.

SUCCESSFUL TRACHEOTOMY FOR DIPHTHERIA.

The usual ill-success of this operation with the discredit that is consequently thrown upon it induces me to briefly report the following case in order to record a result which

may emphasize the value of early resort to surgical interference: Minnie C——, aged two years, became croupy on September 26th. There was slight fever, but as days passed the croupiness became more alarming and on September 30th I was called in. Emetics had been given with but temporary relief. The child grew steadily worse, and next day Dr. Huntington saw the case in consultation. The temperature was 101°, pulse strong and rapid. There was slight redness but no deposit in the fauces. The breathing was more stertorous that evening and as the child was becoming cyanosed, the respiration being stertorous and long drawn, (12 to the minute) and the strength rapidly failing, tracheotomy was decided on. With the assistance of Drs. Huntington and McKee the high operation was performed. Immediately upon the introduction of the tube the breathing became tranquil and the pulse slowed, the cyanosis disappearing. The infrequency of the inspirations was for sometime a source of anxiety and artificial respiration was practised but this was discontinued as it was found that the breathing, though slow was regular, a condition which persisted for several hours. At the time of the operation no membrane was encountered. During the night a thick, gummy exudation was expelled through the tube and on the following day several pieces of characteristic diphtheritic membrane were coughed up. On the third day the matter expectorated had considerably diminished. On the fifth day the tube was removed, and as it was found that air was entering by the mouth it was not introduced. The child made a rapid and perfect recovery. The voice, though somewhat husky, returned on the second day after the removal of the tube. The opening in the trachea was closed on the twelfth day. It may be said that this case like others would have recovered without surgical interference; in view, however, of its critical condition, which continued for several hours after operation, the chances for survival unaided seem more than doubtful.

DEPARTMENTS.

OBSTETRICS, DISEASES OF WOMEN AND OF CHILDREN.

By Wallace A. Briggs, M. D.,

Operations on the Pregnant Uterus. — Prof. Hofmeier ("Deutsche Med. Wochenschr." Bd. xiii, Hft. 19, 1887), presents a review of fifteen operations on the pregnant uterus; two were

Cæsarian sections; of the rest, seven were for carcinoma, and six, for fibro-myomata. Of the fifteen cases two died; one after supra-vaginal amputation of the cervix, the other after Freund's extirpation of the uterus following Cæsarian section. In three cases of supra-vaginal amputation of the cervix the patients aborted—relapse of the carcinoma soon following. In a fourth case, therefore, of carcinoma of the cervix, the pregnant uterus (second month) was removed in its entirety *per vaginam* None of the patients operated on for myoma died. Single myomata were removed after laparotomies in two cases. The uterus was removed four times—twice at the end of pregnancy. The author believes that pregnancy does not increase the danger of operations on the uterus. In many particulars the operative *technique* is even simplified by the greater accessibility of the diseased parts by considerable relaxation of the tissues, and by the possibility of a more perfect closure of the incision.—*Schmidt's Jahrbuecher*, Bd. 214, Nr. 9.

DILATATION OF THE UTERUS.—The metrotome is nearly abandoned, except in discission of the external orifice in either acquired or congenital stenosis. Even here it introduces the unnecessary risk of profound and extensive rupture, and, unless followed by other means of dilatation, it is altogether useless. The rapid method of Schroeder, which consists in bilateral incision of the cervix, even to the *cul-de-sacs* and the forced introduction of the finger through the internal os, notwithstanding the great authority of its inventor, has not been accepted by the profession. A procedure that exposes the patient to the danger of serious hæmorrhage and of grave lesions not only of the vaginal portion of the cervix but also of the fundus, and even of the broad ligaments, I do not hesitate to characterize as brutal.

Of the numerous dilators of Osiander, of Busch, of Sims, of Ellinger, of Greenhalg, of Mathieu, of Priestly, of Schultze, etc., etc., it is necessary to say little. Even Schultze has renounced the employment of his own except after the use of a laminaria tent to soften the uterine muscle and render it dilatable. Hégar and Kaltenboch declare that they have never obtained sufficient dilatation with these instruments, and speak of them only as a matter of history. Landau and Chrobak are of the same opinion. The equable distribution of the expansion force as secured by the conical and cylindrical instruments of Fritsch, of Hégar, of Schroeder and of Tait seems to me better adapted to the end in view. Of these instruments Hégar's are the best. They are of hard rubber, perfectly smooth, and consequently easy to keep clean and aseptic. They have a slight curvature and are graduated by the half milimetre, from one milimetre to two and one half centimetres in diameter. With these bougies one can obtain any degree of dilatation desired, even to the digital exploration of the fundus uteri and the orifices of the Fallopian tubes. In general, however, even in narcosis, a sitting of more than an hour is necessary to reach numbers

16 to 20. To be really rapid in their action they must be preceded by a laminaria tent, which softens the uterine muscle and impairs its resistance. Slow and gradual dilatation is effected by the instruments of Schotz and of Irvisfontaines by tents of sponge laminaria, tupelo, etc., or finally by the method of Vulliet. The instruments of Schotz and Irvisfontaines are constructed on the same principle, but in my opinion they possess no advantage whatever over laminaria.

The danger of infection constitutes the chief objection to tents, but, as Goodell has pointed out, it is not the first tent that does the mischief—this, perhaps, irritates and abrades the mucous membrane and prepares the way for infection, but it is the repeated introduction that is dangerous. Of all forms of tents I prefer the laminaria by far, and I preserve them in an ethereal solution of iodoform (1:10). This renders them not merely aseptic, but better still, antiseptic. They lose their polish; even become slightly rugous. They become also somewhat pliable, and they preserve whatever form may be imparted to them—a not inconsiderable advantage. Prolonged immersion in this solution removes the principal objections to laminaria—the danger of infection, the difficulty of introduction, on account of rigidity and ease of expulsion from the uterus on account of their polished surface. I have tried several methods of dilatation, but the following has given me the best results in a large number of cases:

Having thoroughly washed and disinfected the vagina and uterus by means of either a phenol (3:100) or a sublimate (1:1000) solution, injected by a double current catheter, I introduce the laminaria tent, carefully adapted to the length and calibre of the uterine canal, and thoroughly disinfected as previously described. I crowd the tent to the fundus and allow it to project a half centimetre from the external orifice. Then, maintaining the tent in place, I throw a stream of hot carbolic water against the cervix. Being thus provoked to contraction the uterus moulds itself to the tent and retains it in place. I secure the tent still further by tampons of cotton-wool saturated with borated glycerine, and sprinkled with iodoform powder. The patient maintains the dorsal decubitus until the next day. Pain is very moderate, and occasionally even altogether absent. At the end of twenty four hours I remove the tent, and in the great majority of cases I find that it has remained perfectly in place, and even when it had been partly expelled by uterine contractions the desired effect had been obtained; *i. e.*, a certain degree of dilatation of the uterine canal, and especially of *dilatability* of the uterine tissues. Very rarely do I find it necessary to introduce a second during the following twelve hours. Should I do so, I envelop it in "iodoformized" gauze, to diminish the danger of infection and to hold the tent better in place. It may happen that the first tent produces sufficient dilatation for the purpose in view. If not, I anæsthetize the patient, and in

five minutes insert Hegar's bougies up to the highest number. The method seems suitable to all cases.

Vulliet's method remains. (*vide* TIMES, 1887, page 93.) It is neither difficult nor painful. Unfortunately, however, six or eight days, and sometimes more, are necessary to attain the desired result. It promises excellent results with those who have the patience to submit to it.—DR. FRAEPONT in *Annales de la Societe Medico-Chirurgicale de Liege*, August, 1887.

ANTISEPTIC TREATMENT OF INFANTILE DIARRHŒA. — At birth the digestive tract of the infant is free from microbes. Within the first few days of extrauterine life, however, they make their appearance in great numbers and variety. They are not all pathogenic. Some of them serve a useful purpose, assisting, as M. Vignal has shown, in the physiological labor of digestion. Of these unbidden guests of the alimentary canal he has isolated the varieties that coagulate milk, and at its expense fabricate leucine, tyrosine, the fatty acids that dissolve caseine and that transform the lactose into lactic acid.

Other microbes of the digestive tube, at least in normal conditions, are for the most part innocuous. They cause fermentation of the food and fabricate various chemical substances, acetic, butyric, valeric and oxalic acids, sulphuretted and carburetted hydrogen, ammonia, trimethylamine, leucine, tyrosine, indol, phenol, cresol, scatol, and especially the ptomaines, but in insufficient quantity to be toxic. When neither the microbes nor putrescible foods are in excess, the excretory organs have time either to detain for ultimate destruction or to eliminate the toxic compounds absorbed from the intestines. But if certain conditions—moist heat, abnormal chemical reaction—transform the contents of the stomach and bowels into a medium peculiarly favorable to the multiplication of microbes; if putrescible matter is furnished in large quantity, the toxic compounds already mentioned are produced more rapidly than they can be excreted or destroyed; they accumulate in the organism, and toxic phenomena ensue.

Of the chemical products of microbic origin that play an important role in the diarrhœa of infants, the chief are the acids and the ptomaines; the former may produce diarrhœa by direct irritation of the intestinal mucous membrane, but the latter produce the phenomena of sudden and violent poisoning. These alkaloids, or ptomaines, differ considerably in their toxicity, but in a general way it may be said that the alkaloids derived from the decomposition of albumen have a tendency to produce diarrhœa. Of the putrescible albumenoids present in the digestive canal of the infant the most important is milk, then follow other nitrogenous foods, mucus, serum, blood, pus and sloughs of the gastro-intestinal mucosa.

Besides the administration of antiseptic remedies the antiseptic treatment of infantile diarrhœa comprehends many precautions adopted by our predecessors, but wholly inexplicable by any other

theory than that of the septic nature of this disease. Putting the bottle-fed infant to the breast is an antiseptic measure, as are boiling the milk, laxatives and the reduction of the quantity of aliment. The success of calomel depends perhaps as much on its direct antiseptic, as on its indirect antiseptic, or purgative properties. Jacobi gives .05 to .3, and Emmet .05 to .1 of a gramme at a dose, and Caillé puts .02 of a gramme dry, on the tongue, hourly, for five hours. Resorcine is used by Jacobi and Caillé, in doses of .2 to .5 of a gramme, with bismuth, chalk or Dover's powder; salicylate of soda (.05 to .1) and naphthaline (.1 to .2) by Holt; benzoate of sodium (.25); hydrochloric acid and carbolic acid by Caillé, and nitrate of silver (.001 to .002 gramme every two hours by Jacobi.

Thymol, on account of its feeble solubility, is regarded by Martini as an excellent intestinal antiseptic. But naphthol, perhaps, is to be preferred to all of the antiseptics already named. Its equivalent of toxicity is 1 gm. to 60 kg. It is slightly soluble in water by prolonged agitation (.33 to 1000). In this solution Bouchard has demonstrated its antiseptic powers. Large enemas of warm alcoholized or salicylated water is another important means of intestinal antisepsis.

In the "green" diarrhœa of nurslings Hagem has demonstrated the value of lactic acid—the microbe of this form of diarrhœa being unable to live in an acid medium. He gives a teaspoonful of a two per cent. solution, after nursing, and finds that the vomiting soon ceases, the stools diminish in frequency and lose their greenish color, and finally become normal. This form of disease is contagious, and the stools should be vigorously disinfected.—*L'Union Medicale*, September 17, 1887.

SURGERY AND PATHOLOGY.

By T. W. Huntington, M. D., Surgeon, Southern Pacific Company's Hospital.

The Radical Cure of Hydrocele.—While in a vast majority of cases of hydrocele ordinary methods of treatment suffice; yet occasional recurrences of the condition demanded more vigorous and heroic measures. There is no new method of treating hydrocele. Antiseptic precautions in wound dressing have rendered possible a revival of some older methods which were abandoned temporarily on account of the risk to the patient. The operations now much in vogue are as follows:

1. *Incision.* (Volkmann). An incision is made from the external abdominal ring to the base of the scrotum and reaching down to the tunica vaginalis. That membrane is incised along the track of the first wound. Bleeding vessels are ligatured. The subsequent steps are, briefly, irrigation with a three per cent. carbolic solution, suturing of the tunica to the integument, and the application of a careful antiseptic dressing.

2. *Partial Resection.* (Julliard). After the skin and tunica vaginalis have been cut, as in Volkmann's operation, the redundant portions of the tunica are removed. A drainage tube is then laid in the wound, up to, but not into the tunica vaginalis, and the skin wound closed.

3. *Complete Resection of the Parietal Tunica Vaginalis.* (Bergmann). After section of skin and tunica vaginalis, the latter is dissected off close to the epididymis and testicle. Bleeding vessels are ligatured, a drainage tube laid in, and the skin wound closed by numerous sutures. Irrigation is conducted similarly in all operations. There is no doubt that the operations thus briefly described, while devoid of difficulty, are by no means without elements of danger. The risks, however, can be so minimized by care, that the results compare favorably with the milder methods by injection. The only one of the three which seemed to involve difficulty was that of excision, but I was astonished to find with what ease the distended tunica vaginalis peeled off the front of the cord. The after treatment is a matter of great importance. Neither of these operations is justifiable without it be at the hands of a surgeon disciplined in all the minutiæ and details of antiseptic precautions. —J. S. McArdle, in the *Dublin Journal of Medical Science*, Sept., 1887.

On the Treatment of Tetanus.—Some years ago, says Austin Meldon in the "Medical Press and Circular," I treated a case of tetanus with a combination of hyoscyamus, belladonna, and conium. The case was very acute. First symptoms noticed on the fifth day. On the following day the pulse was 120 and temperature 103°. Under the above treatment the patient recovered. Some months later I met another successful case, beginning on the seventh day. Of seventeen cases which I have now treated by this method, thirteen recovered and four or 23 per cent. died. The writer has collected 937 cases treated by all methods. Of these 185 recovered and 752 or 80 per cent. died.

Pneumonotomy.—M. Guermonpres reports a case to the Académie de Medicine, in which he performed this operation on a man twenty-four years of age who had had vomicæ for four years. His conclusions are that exploratory incision of the pleura is, at least in certain cases, an operation of little danger. When the fœtid odor indicates that the focus of suppuration is contiguous to the digestive canal, the incision in the pulmonary parenchyma ought to be carried to a sufficient depth through apparently healthy tissue. If two foci exist with slight communication, one of them will be found to be more or less inaccessible. Tepid injections of a stimulating solution will determine a communication between the two tracts and also facilitate their evacuation through the thoracic parietes. Practised under favorable circumstances pneumonotomy is an operation in which the consequences are relatively harmless and can render very important service.—*Progres Medical*, Sept. 3d, 1887.

TREATMENT OF ANEURISM BY MOORE'S METHOD.—M. LEPINE reports two cases of aneurism of the arch of the aorta treated by Moore's method. In the first, in consequence of the failure of different methods, and fearing a rupture of the sac, he passed a very fine Pravaz needle into the tumor and through it a hair, (*Crin de Florence*) at least 30 cm. in length, previously soaked in carbolic oil; he introduced fifteen similar hairs. The patient succumb to a pulmonary complication which had commenced before the operation. The autopsy showed the sac to be filled with soft blood clots. In the second case M. Lepine passed a watch spring into the sac, leaving 35 cm. in the aneurism. The tumor had diminished in size and there had been no complication other than a small subcutaneous abscess. There had been considerable benefit.—*L'Union Medicale*, Sept. 6th, 1887.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D.

SINGULAR INOCULATION OF SYPHILIS THROUGH THE LIDS.—DR. TEPLIACHINE communicated the observation of a true epidemic of syphilis in the province of Glazooski. Among the ignorant population of that country all eye diseases are attributed to the presence of foreign bodies, and the customary treatment is to have medical magicians lick the conjunctiva and lids. One of these having acquired syphilis, communicated it by licking the lids of 13 per cent. of the population among whom eye disease was frequent. The symptoms first made their appearance in the form of an indurated chancre on the upper lid.—*Journal de Med. de Bordeaux—Rev. Clinic d'Oculistique.*

THE OTOPHONE.—J. A. MALONEY, of Washington, D. C., describes a new instrument, ("Arch. of Otology," Sept., 1887) devised to aid the deaf, and to assist in restoring the hearing, and in the instruction and development of hearing in the deaf mute. He has three instruments of different sizes to accommodate different degrees of deafness. They are held in place by the tragus, antitragus, and concha but do not enter the meatus. The inventor gives reports of a number of cases in which it was found to improve the hearing of patients who were congenitally deaf as well as those who had become so later in life. Dr. C. H. Burnette said that the most useful ear trumpets yet presented to his notice are those of Mr. Maloney's. They are not only useful as conductors of sound, succeeding where other forms fail, but they do not fit into the meatus. This does away with bruising the canals or exciting furuncles in it, so common in forms heretofore in use. They have been devised in a scientific manner, and introduced to the profession on their merits. The best results, or the most signal ones, have been obtained by the so-called silent instrument. This is simply because it is the most powerful, and hence renders most aid to the very deaf, the only

people who are really willing to use an instrument. The smaller instruments are just as good for those not very deaf, and, if used by such patients, would aid in the retention of hearing, and tend to cure their hardness of hearing, as he has shown. But the less afflicted class seem unwilling to use any form of ear trumpet. All ear trumpets of any value must possess some size in order to contain a column of air sufficient to impress the drum. They must be larger than the auricle with which the patient is already supplied. Hence all invisible appliances, so-called, are self evidently good for nothing.

THE THREE TONSILS—SOME PRACTICAL SUGGESTIONS IN REGARD TO THEIR STRUCTURE, FUNCTION AND DISEASES.—In an elaborate paper read by Dr. F. A. BOSWORTH before the New York Academy of Medicine (Transactions, vol. iv. p. 297) on the above subject, he expressed some original ideas in regard to their structure, etc. The glandular bodies between the pillars of the fauces are designated as faucial tonsils and the glandular masses which are found in the vault of the pharynx, pharyngeal tonsils. He believes that all these bodies are the results of pathological processes. That in perfectly healthy throats there are no tonsils, but they are developed by hypertrophy of the normal glands of the mucous membrane which is, in these parts of the throat, abundantly supplied. The author classifies diseases of the tonsils as subacute tonsilitis, acute follicular tonsilitis, diphtheritic tonsillitis, hypertrophied tonsils, and quinsy.

Subacute tonsilitis consists of a mild form of inflammation, characterized by swelling and hyperæmia of the glands, and is the result, generally, of exposure to cold. It runs its course in from four to seven days, and causes little disturbance. Acute follicular tonsilitis consists of an inflammatory process, involving one or both tonsils, which is characterized by the exudation into the crypts of the glands of a fibrous material which fills and distends their cavities. The onset of the attack is marked by a chill, followed by general febrile symptoms of a marked character. The skin becomes hot and flushed, there is headache, pain in the bones, loss of appetite, and all the evidence of a febrile movement far greater than can be accounted for by the amount of local inflammatory action. He believes this to be an essential fever with a local manifestation in the throat.

Croupous tonsilitis he regards as the same disaase, with an eruption which is more marked or efflorescent. The exudation which in the former case confines itself to the crypts of the glands, in the latter fills and overflows them, forming a continuous membrane. Diphtheritic tonsilitis occurs in connection with the blood poisoning of diphtheria.

Hypertrophied tonsils give rise to a train of symptoms which are mainly due to the mechanical pressure of these glandular masses, in the fauces. They occur mostly in young people. Their development is attended by the occurrence of repeated attacks of subacute inflammation or ordinary catarrhal sore throat, and they show a

tendency to subside at puberty. Their development is also the result of a purely morbid process, and is not, as a rule, the outcropping of a constitutional discrasia. If there is any impairment of health, it is to be accounted for by the mechanical action of the growths, in obstructing respiration, disturbing sleep, or otherwise interfering with the natural functions. Hypertrophy of the pharyngeal tonsil is produced by similar processes to those which produce hypertrophy of the faucial tonsils. If the hypertrophy has gone to the extent of developing a glandular mass, which, by its pressure, interferes with the functions of the parts, or which in any way gives rise to serious symptoms, there should be no question as to the proper remedy. They are diseased structures and should be extirpated.

Quinsy is a disease of the cellular tissue of the fauces rather than of the tonsils. Phlegmonous or suppurative disease does not occur in the glandular structures, but belongs rather to areolar tissue. The cause of quinsy, the author believes, in very many cases, to be the rheumatic habit. He treats these cases as phlegmonous inflamations due to rheumatism. Of those whom he has seen within the first thirty-six hours of the disease, the attack has been aborted in the majority of cases by administration of fifteen grains of salicylate of soda every two hours. Bicarbonate of soda is recommended to be applied locally on the end of the finger. With patients with a quinsy habit, if used early by themselves, it seems to act beneficially.

THERAPEUTICS, DERMATOLOGY AND VENEREAL DISEASES.

By Crocker Simmons, M. D.

Poisoning by Inhalation of Oil of Turpentine.—Dr. Reinhard records in the "Deutsche Med. Wochenschr." xiii, 13, 87, the case of a young cooper at work in a closed room, in which had been placed small kegs formerly filled with turpentine. On the first day of his work the patient complained of dizziness, without headache; on the second day, dryness in the mouth and great debility; on the third day, an increase in these complaints and much smarting on urinating. The bladder was distended, reaching to the navel. Upon catheterization a bloody, heavily albuminous urine of a strong violet odor was discharged. On the next day there was a general improvement. After the exhibition of ergot the blood disappeared. The symptoms gradually improved, and after a week the urine lost the violet odor. The patient, on the eighth day, was discharged, cured. Dippe ("Schmidt's Jahrbuecher," Sept. 15, 1887) calls particular attention, as shown in this case, to the absorptive power of the lungs. Nothnagel and Rossbach have proved that some 8 gm. of turpentine oil taken internally are necessary to produce in the adult the foregoing symptoms. It is remarkable that the father of the patient, working in the same room with him, remained in perfect health.

THE NITRITES IN ASTHMATIC DYSPNŒA.—DR. FRAZER, of Edinburgh, sums up an interesting article upon this subject ("Am. Journal of Medical Science," Oct., 1887), as follows: "The facts that have been stated seem to justify the assertion that their administration in this manner (by the mouth), in asthmatic dyspnœa, or orthopnœa, is entitled to rank as one of the most valuable of the applications of pharmacology to the treatment of disease."

ELECTRICITY IN THE TREATMENT OF VEGETABLE PARASITIC DISEASES.—This therapeutic measure was advocated by DR. REYNOLDS, in an interesting paper before the Ninth International Congress. It favors the absorption or deep penetration of the antiparasitic solution employed. Cocaine, when thus applied, produces anæsthesia of the entire thickness of the scalp. From five to ten cells are usually employed in treatments of this nature.—*Jour. Cut. and Genito-Urinary Diseases*, October, 1887.

A RELIABLE PREPARATION OF COLCHICUM. — In the "College and Clin. Record," Sept. 1, 1887, DR. ARNOLD, of Newport, R. I., dwells upon the importance of a reliable preparation of colchicum, in the treatment of rheumatism. He recommends a tincture, freshly prepared in the following manner: One ounce of the seed and half a pint of highest proof alcohol; allow this to stand a fortnight, shaking it twice daily; to five drams of this add half a pint of water, the dose being half an ounce. The subject is important, for physicians frequently find the market preparations of this drug utterly unreliable.

SOLUTIONS OF ARSENIOUS ACID.—A one per cent. solution of arsenious acid is frequently prescribed in alcohol, but the most authoritative foreign works, such as "Real Encyclopedie der gesammten Pharmacie," les Commentar de Hager, etc., etc., give this proportion as insoluble in alcohol. The "Dictionnaire de Chime de Wurtz" gives the coefficients of solubility of the different allotropic modifications of arsenious acid in alcohol, and these coefficients generally average below 1 per cent. To elucidate this question, PETERS–VAUST ("Annales de la Société Medico-Chirurgicale de Liege," August, 1887), tried various experiments with water and alcohol as a medium for the solution of arsenious acid. He states that a solution of one and one half per cent. arsenious acid in alcohol at 94° can be readily prepared, and that it is more easily kept than a similar solution in water. He adds that it is possible to add to a 3 per cent. aqueous solution of arsenious acid any quantity of alcohol which may be desired without producing precipitation.

ETHEREAL INJECTIONS IN THE TREATMENT OF CYSTITIS. — M. CHAUDELUX ("Lyon Med." "Ann. des mal. des Organes Genito-Urinaires"), has made use of vesical injections of a 13 per cent. ethereal solution of iodoform in a number of cases of obstinate cystitis, and reports satisfactory results. He regards the iodoform as playing

only a subordinate part, and attributes almost all the efficiency of the treatment to the ether which he thinks acts by becoming vaporized and thus distending the contracted bladder. The fact of its vaporization is shown by a tympanitic percussion sound in the hypogastrium. Distension of the bladder by the forcible injection of liquid, is, he remarks, not often well borne; the bladder is intolerent, and contracts spasmodically when such a distending force is applied. But distension by means of a vapor is so gentle and manageable—the expansive force of the gas and the contractile power of the bladder being very nearly balanced—that spasm does not result. The iodoform is expelled with the urine and is not deposited on the interior of the bladder.—*N. Y. Medical Journal*, Sept. 10th, 1887.

MEDICINE.

Inoculation of an Infant with Tuberculosis.—Dr. Elsenberg reports the case of a child, of healthy parentage, that was circumcised on the eighth day. The wound was sucked (*ausgesaugt*) repeatedly by the operator, became purulent, did not heal, and two months later the inguinal glands of both sides began to swell. On the 28th of February, 1886, the child was brought to the author for treatment: It was strong, and its internal organs (lungs) were healthy. The prepuce was the seat of a circular ulcer, with a yellowish base and undermined and infiltrated border. The inguinal glands were enormously swollen On the left side the skin was broken, and a sound penetrated deeply between the abdominal muscles. From this opening flowed a turbid, watery fluid, mixed with cheesy particles. Behind the left ear there was a large fluctuating abscess. A diagnosis of syphilis was made, but specific treatment was without benefit. The further course of the disease was unfavorable. Erysipelas followed, extirpation of the inguinal glands, pus was evacuated from the left auditory meatus, the child lost strength rapidly, and died on the 12th of March, in consequence of hæmorrhage from the abscess in the abdominal walls. An autopsy was not granted, but the author removed portions of the prepuce and of the original glands, and demonstrated the characteristic histological changes and the bacilli of tuberculosis. Examination of the Rabbi who performed the operation revealed incipient tuberculosis of the left apex and the presence of the bacilli in the sputa The author is of the opinion that such cases are of frequent occur rence, but that hitherto they have been falsely interpreted. Since May, 1887, he has seen three similar cases, whose character was positively determined by the discovery of pathognomonic bacilli.—*Schmidt's Jahrbuecher*, Bd. 215, Nr. 8.

Suette Miliaire.—M. Brouardel thus describes the epidemic of Suette Miliaire, which prevailed in parts of France during the early portion of this year. The disease was sometimes preceded by

gastric prodromata; more frequently the attack was sudden. The symptoms of the *first period* are sweats, fever (38° C. in the benign and 40° in the graver cases), a condition of general prostration, with nervous phenomena; the tongue is furred; ordinarily there is constipation; epistaxis is frequent; there is also a frequent cough. The *second period* begins with the eruption. It appears on the fourth day, rarely on the second, third, fifth or sixth. It is announced by prickling and itching, and is characterized by the miliary eruption proper, and by an exanthema, which serves as a background. This exanthema may be rubeolar or scarlatinal, hæmorrhagic or purpuric in character. It appears first on the face and neck, the upper extremities and trunk, and then invades the inferior extremities. At first red puncta can be seen in the fauces. The eruption sometimes appears as a single crop in twenty-four or forty-eight hours; sometimes in several. All the initiatory symptoms quickly improve, and the pulse is lowered. The stools have the consistency and appearance of tar or pitch, and give off an infectious odor. In no case was albumin detected in the urine. Nasal, bronchial and intestinal hæmorrhages may occur at this period. The *third period* corresponds to the desquamation which takes place in isolated points in large shreds. Convalescence is tedious, uncertain and painful. The subjects are very anæmic and feeble, œdema of the lower extremities, fibrillary tremors of the facial and lingual muscles occur, with insomnia and loss of appetite. Rarely a crisis analogous to that in locomotor ataxia, or mental trouble, is observed.

The Suette Miliaire presents two clinical varieties; one is rapidly fatal in less than forty-eight hours; the other is remarkable for its extreme benignity. Relapses are not infrequent. Prognosis should always be most guarded; its gravity varies with the age. Diagnosis is always easy. In some adults, and in the great majority of children, a variety occurs which closely resembles measles; this is the *suette infantile.* In this form the prodromata closely resemble measles, but are accompanied by unusual phenomena, sweats, smothering, vomiting and epistaxis. The eruption ordinarily appears on the second, and from that to the fourth day, as in measles. The eyes are bright and dry, coryza being absent; the cheeks are flushed, giving to the fingers the sensation of a roughened surface; the body is moist, or bathed in sweat. The eruption appears on portions of the trunk, spreading until it forms a uniform surface and becomes rubeolar scarlatinaform in character. The desquamation is in the form of large pieces, or small shreds. M. Brouardel is satisfied that this disease is not an abnormal measles, but the Suette Miliaire, having all the principal characters of that disease, and bases his opinion on the clinical and epidemiological features of this variety. The disease was more fatal in adults than in children. It is decidedly contagious, but the method of transmission is unknown. *Proyres Medical,* Sept. 17, 1887.

Fluorhydric Acid Inhalation in Phthisis.—M. Garcin has presented to the Academy of Medicine his results obtained in the treatment of phthisis with the vapor of a dilute solution of fluorhydric acid. He has been using this agent for upwards of a year. He had divided a portion of a room into five small inhaling chambers, in which phthisical patients, at different stages, were given daily inhalations of fluorhydric acid vapor. The results obtained have so far been, in 100 cases: unimproved, 14; improved, 41; cured, 35; died, 10. Every day the patient remained for one hour in a cabinet containing six cubic metres of air, saturated with fluorhydric acid, obtained by pumping a current of air through a gutta percha bottle containing distilled water, 300 gm.; acid fluorhydric, 100 gm. The dose of the acid varies with the tolerance of each patient. In the first stages twenty litres to each cubic metre is readily borne; in the second stage about fifteen litres, and in advanced cases, ten only. The saturation is generally completed in between ten and twenty minutes Under the influence of this treatment the cough diminishes, the dyspnœa and chest pain improve, and finally cease. On leaving the cabinet the patient feels hungry; the sweats cease completely; the bacilli become daily less numerous, and finally disappear from the expectoration. The general condition of the patient improves rapidly, and after fifteen or twenty seances, they have the appearance of perfect health. Mr. Garcin has examined several of the cases treated, almost a year ago, and the improvement then produced has been steadily maintained.—*L'Union Medicale*, September 22, 1887.

Muscular Pains.—Dr. J. Simon recommends "Nouveaux Remédes") for muscular pains:

Neutral Sulphate of Atropia,	.25	gm.
Benzoated Lard,	30.	"

He says that this application will often allay and dispel the pains.

The Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

SACRAMENTO: NOVEMBER, 1887.

THE EVILS OF MODERN FEMININE ATTIRE.

In recent years attention has been frequently directed to the evils resulting to the mental and physical organization of the gentler sex by over-education and over-pressure. The profession has been more reticent on the universal evils which necessarily follow the modes of modern feminine attire, possibly recognizing the magnitude of the task and the overwhelming difficulties to be encountered. Yet, while it is Utopian to hope that woman will adopt and maintain, a style of dress which would be at once suitable and healthful, it is instructive to investigate some of the many troubles distinctly traceable to prevailing fashions.

Dr. C. M. Jessop, in a paper on "Ancient Dress Compared with Modern Dress in Relation to Disease," read before the British Medical Association, ("British Medical Journal," Sept. 17th, 1887) reviews the question of dress from the early period of 5,890 years ago to the present day in a comprehensive and interesting manner. From this it would appear that the costume of the ancient Greeks and Romans had the advantage of beauty, simplicity and harmlessness; but such an innovation would be out of the question at this date under the changed condition of social life in our modern civilization. The author first discusses the XIXth Century corset, tracing it from its prototype, the *strophium*, a broad band used by the Roman ladies to support the bosom, through its evolution into the stays of wondrous dimensions during the Georgian era. He reviews the mechanism of the ribs during respiration, the movements of which are classified

as upwards and outwards for the superior six and downwards and outwards for the remainder; the rise and fall of the diaphragm carrying with it the abdominal and thoracic viscera is also explained. This motion is estimated at 720 yards per diem for the heart, and double that amount for the liver, during tranquillity. These movements are of service by increasing the suction power of the right heart and therefore accelerating the circulation in the liver and emptying the veinous system. This natural cycle is prevented by the combined constriction and displacing force of the corset, which crowds the viscera together, arrests or prevents their movements and lessens the vital capacity of the lungs.

The author says "ignorance, therefore, of the positions and actions of the organs of respiration, circulation and digestion, along with inherited custom, perpetuates an article of dress faulty in construction, and leave the apices of the lungs, as they rise above the collar bones, unclothed." He quotes Dr. Walshe as believing that whether this article of dress shall or shall not inflict mischief on the lungs will probably depend upon the amount of constriction; however, there is no doubt that "drawing in the lower ribs by an apparatus more or less unyielding must lessen their capacity, for the respiratory murmur is almost inaudible in the lower lobes until the constrictor is removed." Dr. Jessop holds that while costal respiration in women may to some extent be inherited, it is mainly due to stays. "Increased work creates increased flow of blood and exaltation of nervous sensibility to atmospheric changes. If there be superadded the impure air of heated and crowded rooms and insufficient clothing of the upper part of the chest, the maximum conditions are present to produce frequent short colds, ending in chronic congestion, which paves the way for the inception of more serious disease." He argues that because joints subject to injury are prone to rheumatic disorders, and because the heart is the organ which earliest exhibits movement; therefore, as the ratio of rheumatic affection of the heart in women is greater than that

in men, it may be inferred that constriction of the chest-wall by unyielding apparatus is inadvisable.

The liver suffers more obviously than other organs from artificial constriction, as the appearances which are familiar to every anatomical student so frequently testify. The organ may be displaced upwards or downwards, according to the direction of pressure. The most common effect is the production of deep grooves and fissures which penetrate deeply, till in some cases only a loose ligamentous connection remains between the separated portions. The removal of hepatic tissue along these grooves diminishes the functional capacity of the organ and so reacts on the system at large. Frerichs describes the results of this morbid condition as commencing with gastric and intestinal derangement, anorexia flatulence and borborygm (so common in young ladies with fashionable figures) alternate constipation and diarrhœa, with sooner or later defective sanguinification and nutrition.

The author asserts that the pelvic viscera suffer as much, if not more, than other organs by these constrictions. Several authorities, notably Graily Hewitt, hold that many cases of uterine flexion can be ascribed to this cause alone. Compression on the abdominal walls, which in turn produces loss of muscular tone, the forcing downwards of the liver and intestines, puts a strain upon the uterine ligaments which they are unable to withstand and displacement of that organ is the result. "Whatever the evil of corsets may be the habit of tying tight bands around the waist is vastly more dangerous, because it finally prevents any little movement amongst the pelvic viscera which might have escaped the stays. From this practice many evils other than uterine displacements may follow which requires a race of practitioners never contemplated by nature to successfully combat."

Dr. Jessop favors a short skirt in preference to the long dress, for many obvious reasons, chief amongst which are that in times of danger or emergency there would be "nothing to encumber or interfere with the preservation of life,

while modesty is in no ways outraged." He has a word to say regarding "a custom fertile in disease and death," namely: the décolleté style of dress, or undress, now happily less fashionable than some years ago. "The back, shoulders and arms with half the bosom exposed is nakedness without modesty. It is not beautiful, for the witchery of dress is absent. Duplicate hollows, prominences and angularities detract from that assemblage of properties which attracts and pleases the eye, the impression of oneness is lost."

There is much in this paper which is interesting from an historic aspect, but the foregoing indicates the points of most professional interest. The importance of the question, and of the further proposition, whether it may not be possible by earnest efforts to effect some wholesome reform, is one which merits our consideration. As we have said, the subject is one to which the profession has given but little attention, and yet when we consider that by pernicious customs women inflict lasting injury, not only on themselves, but on their progeny of either sex, it would seem that a more thorough understanding of these evils would in itself have some influence. The great difficulties in the way of the reformer are sentimental. Woman is a creature of habit, intensely imitative, and will blindly follow a particular style, because it is "the fashion," while readily admitting that it is not perfectly graceful, or even comfortable. As instances, we may cite the hoops of antiquity, the "pinback" of a later age, the high-heel shoes, so fertile in backache, in which the gait was assimilated to that of the tailess apes, and now in our own days that posterior protuberance which goes by many names, but which has at date surpassed the natural feature of the Hottentot Venus. Can we imagine a woman—unfortunate being—whose gluteal region would naturally exhibit this peculiarity? We must realize that no risk of life would deter her from submitting to any operative procedure which would rid her of the monstrosity.

Women dress first for their own sex, next for their own edi-

fication, and but little for the delectation of the masculine mind ; hence its feeble influence. If a suggestion in the direction of healthful improvement should be made, it will be met by the unanswerable objection that with the present style of dress it is impracticable ; and this is true. Modern dress is in harmony with its components, and if we would accomplish anything, there must be a total and radical change. Here it would be well to say that while the XIXth Century costume is accomodative to all styles of femininity, allowing the thin and lean to simulate and deceive, while it aids the redundant in pruning and restraining, yet a healthful mode of dress could be devised which, accomodating all proportions by subduing outlines and contrasts, would render all devices unnecessary. By this means true beauty would be preserved and undesirable extremes less hardly dealt with. There are few of the gentler sex who consider that the figure which fully and cunningly clothed is their pride and often the admiration of fallible man would unclothed be immeasurably removed from the realms of artistic beauty.

The lines on which reform should be directed would include the abolition of all constricting apparatus; provision for supporting the breast when necessary; suspension from the shoulders of a portion of the weight of each garment. The clothing of the upper parts of the chest, with under as well as outer clothes ; a reduction in the length of the skirt, so as to keep it clear of mud and dust, with sufficient amplitude to allow of freedom of motion. The clothing of the trunk and upper extremities to be so proportioned as to permit of unimpeded movement of the arms. This would abolish the modern absurdity of a woman when dressed being unable to put on her hat or button her shoes. These changes are not beyond the ingenuity of the sex, nor of the dressmaker, whose fertile imagination conjures up new distortions. It would require a radical reform ; the construction of the garments, first, for healthful clothing ; and next,

but subordinate, for artistic grace. In this connection we must bear in mind that grace and beauty, fashion or style, are very changeable terms, largely depending on habit and prevailing taste. What is well to-day, may be outrageous to-morrow, in illustration of which we may take any epoch in the previous centuries ; so that a change, however radical, would but seem so for a brief period. Meanwhile, who shall have the courage to take the initiative, "*c'cst le premier pas qui coup.*"

NOTES.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES.—Commencing with January, 1888, this well known journal will be issued as a monthly.

PHILADELPHIA MEDICAL TIMES. The "Medical Times" has changed hands, and is now owned and published by the editors, Dr. Frank Woodbury and Dr. William F. Waugh, Dr. Geo. H. Rohé acting as associate editor. The editors have taken the very desirable step of abolishing insets. An innovation, in the form of signed editorials, has been introduced.

PROFESSIONAL SECRECY.—"L'Union Médicale" says that a Belgian physician has been found guilty of having refused to give the name of the mother of an infant, when registering the birth. Replying to a question put in the Chamber of Deputies, the Minister of Justice states that there was no law compelling a medical man to violate professional confidences. The Belgian Medical Society proposes to investigate this frequently recurring question with a view to attaining a satisfactory solution.

KOCHER'S SUTURE.—DR. N. SENN, in the "Journal of the American Medical Association," describes a method of suture adopted by Kocher, of Berne, which he says ought to be more generally known, as it is done rapidly and neatly. "It is a form of continued suture, either with fine silk or catgut. A long, straight needle is threaded with suturing material, and as an assistant makes traction with a blunt hook upon each angle of the wound, so as to straighten its margins (a procedure which greatly facilitates the suturing), the needle is passed alternately deeply and superficially, so that approximation and coaptation sutures follow one another. In this way a large wound can be stitched accurately in a few minutes.

ANTISEPSIS IN DUELS.—"Le Progrés Médical" gives the "Journal des Sciences Médicales de Lille" as the authority for a new application of the Listerian system, which was probably not foreseen by its

illustrious founder. In a recent duel the combatants had run each other through, notwithstanding which they were up and about in a few days. This fortunate result was due to the precautions taken by Dr. Rodolphe Labusquére, who had sterilized the sword blades by passing them through a flame and kept them, previous to the combat, in carbolic solution. The "Journal," while recommending this to the consideration of intending duellists and their seconds, expresses the opinion that in the future sterilized swords will be sold in tubes stoppered with absorbent cotton.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Return of Ovarian Cyst after Operation.—A Study of Second Dentition.—The Microbes of Paralytic Rabies.—Micro-Organisms in Vegetables.—Composition and Synthesis of Pilocarpine.

The "Journal des Connaissances Médicales," of July 28th, 1887, publishes a note, by M. Vanheuverswyn, on a clinical case—a return of ovarian cyst after operation.

The patient, a strong, healthy woman, 44 years of age, had been operated upon for an ovarian cyst in 1883 by Professor Adolphe Faucun, who fixed the pedicle of the tumor to the anterior abdominal wall. A suppurating fistula persisted for about six months after the operation and then closed. Menstruation ceased in 1884, and patient observed that her abdomen again began to swell. In March, 1887, she entered hospital. The tumor, which developed very slowly, was as large as a human head. It occupied the lower part of the abdominal cavity, the umbilical and hypogastric region. Patient was operated upon the 7th of March by M. Duret. An incision was made, starting from a few centimetres above the umbilicus, going around it to the left, and descending to within three centimetres of the pubis. On opening the parietal peritoneum the tumor became visible; it was fixed to the cicatricial ombilic of the previous operation. On puncture a small quantity of albuminous liquid escaped. On introducing the hand into the peritoneal cavity it was found that there were no adhesions, and that there was, so to speak, no pedicle, the tumor being implanted on a large base. The surgeon freely opened the cyst and surrounded the tumor with hot flannels and sponges, after which he proceeded to empty it. The contents consisted of a great number of small cysts, and here and there a gelatinous mass, that had to be extracted with the fingers. The greatest part of the tumor was in this way brought out of the abdomen. An artificial pedicle was thus constituted, upon which was placed a Championnets' tweezers, close to the surface of the uterus. It was then divided and tied by numerous ligatures; but, at the external part, in the direction of the pelvis, was a prolongation, in shape like the finger of a glove, full of albuminous liquid,

the end of which it was not possible to reach. This cystic diverticulum was subsequently fixed by silk sutures to the inferior angle of the abdominal wound; the abdominal wound was then closed. The results of the operation were good. No fever during the first three days; but slight fever later, owing, probably, to the suppuration of the extensive wound. There remained a small fistula, that soon closed up from the interior. In the beginning of May, patient was nearly well enough to leave hospital. Examination of the tumor showed that it consisted of a great number of small cysts. In some parts they were so numerous and rudimentary as to present the appearance of the flesh of an orange.

Professor Duret considers this case interesting from two points of view: Where did the relapse occur? How was it possible to pediculate the tumor?

1st.—In his opinion, the relapse did not take place in the ovary on the opposite side, although the presence of the healthy gland was not proved. The cyst was reproduced at the place of the old pedicle, since it was adherent to the cicatrix, immovably fixed in the abdomen, between the parietes and the left horn of the uterus, and that, from the commencement, it was developed in the central part.

2d.—The pedicle of the tumor was formed at once by the opening of the pocket and the emptying of part of the cysts. It was left floating within the abdominal cavity; its pelvic extremity only was fixed. It was impossible to discover the point of implantation of this pelvic extremity, which extended into an excavation behind the matrix.

It may be interesting to add to these observations what Professor Faucon had already said in 1883, after the first operation: "After the ablation it was noticed that the cystic tumor sent a prolongation far away into the pelvis. * * It may be asked whether a small portion of the cystic pocket has not been left in the pedicle?"

M. J. Albarran has published a communication on "The Development of Second Teeth." The author conducted his researches on the jaws of children, aged from three to six and a half years, for the purpose of studying: 1st—The formation of the alveole of the tooth of second dentition. 2d—The development of the alveolo-dental ligament and the mechanism of the growth of the permanent tooth. 3d—The reabsorption of the root of the milk tooth.

Formation of the Alveole of the Second Tooth.—It is known that from the epithelial cord of the milk tooth there springs a secondary germ *(bourgeon)*, which, placing itself below and behind the primitive germ, will form the definitive tooth. Soon there appears between the two germs a bony partition, separating the two alveoles; but the alveole of the second tooth is not, as is generally supposed, completely closed towards the gum. There exists at that level, a constant canal (the *iter dentis* of Serres), which contains the fibrous bunch and the epithelial debris of the gubernaculum that were described by Malassez. In a previous work the author attributed the

development of dental cysts to the obliteration or deviation of this canal. His researches corroborate the description of Malassez, and he has always found a large epithelial debris situated high up at the back of the coat of the follicle of the definitive tooth. Above, the debris penetrates the gubernaculum; below, it is prolonged far into the wall of the follicle, and is more or less connected with the external layer of the organ of enamel. The cellules forming this debris are cylindric at the periphery, and the central layers have a pavement appearance, with uniting filaments, and sometimes seem more or less adamantine. The position of this debris behind the second tooth, like that of the germ of this tooth itself behind the germ of the milk tooth; its constant existence, its size, its structure also, all lead to the supposition that this debris represents an atrophied organ, possibly corresponding to a third row of teeth, such as are met with in the lower vertebrate animals. As fast as the second tooth is developed, the follicular cavity also increases and approaches more and more to the gum. Meanwhile, the inter-alveolar partition is destroyed by ostitis, from above downwards, at the same time that the root of the milk tooth gradually disappears. There exists now only one large alveole, of which the anterior wall is formed of the anterior wall of the alveole of the milk tooth, and of which the posterior wall corresponds to the posterior wall of the gingivo-alveolar canal (*iter dentis*), which has ceased to exist. This alveole contains the two teeth, the milk tooth and its substitute, separated only by a simple conjunctive partition, which is constituted by the union of the wall of the follicle of the second tooth and by the corresponding portion of the ligament of the milk tooth. This alveole will itself be soon destroyed by ostitis from below upwards to a level with the root of the second tooth; that is to say, to where the wall of the follicle of that tooth is continued with the papilla. Therefore, it is evident that ostitis destroys all that portion of the bone that constituted the alveole of the milk tooth, the gingivo-alveolar canal, and even to a considerable portion of the bony shell of the follicle of the second tooth. The definitive alveole will have no connection with the primitive one. It will be entirely formed by that portion of bone which surrounds the root of the second tooth, as fast as it is being developed.

Development of the Alveolo-Dental Ligament.—As fast as the tooth is forming, the cavity of the follicle increases, first at the expense of the gubernaculum, and afterwards at the expense of the bony partitions that successively disappear; so that, at a certain period, when the root of the milk tooth has entirely disappeared, the summit of the cavity is on a level with the papillæ of the gum, just behind the milk tooth. Until then the follicular cavity is quite closed, and is even seen to be clothed with a layer of epithelial cellules united by filaments. This layer is thicker above and on each side of the summit of the vault than in the lower parts, and it is easy to understand its signification when considered simply as the

most external part of the organ of the enamel, of which the cellules have not yet undergone adamantine evolution and the papillæ of which have disappeared. The gum is now soon pierced, the milk tooth falls, and the cavity of the follicle communicates with the buccal cavity; the epithelial layer, just mentioned, will then continue with the epithelium of the gum and what remains of it will form, later on, a portion of the epithelium of the setting. Meanwhile, and until the complete eruption of the tooth, the soft parts will become atrophied in the same way as the bones and the root of the milk tooth; the gum will become lower, and the deep circular *cul-de-sac*, that existed when the tooth came through the gum, and that corresponded to the entire depth of the follicular cavity, will be reduced to the usual little furrow that is seen around the newly pierced tooth. All that remains, therefore, of the follicle is a small portion, coinciding with the gum around the edges of the setting. While the superior parts are becoming atrophied, the root is developing in the lower parts; the cement is formed in the midst of the conjunctive tissue, and that part of this tissue that is comprised between it and the bone forms the alveolo-dental ligament. At the outset the fibres of the ligament have a general direction parallel to the new root, but they soon become oblique from above downwards and from within outwards, this obliquity being more manifest in the upper fibres. This disposition is easily understood when it is considered that the fibres are forced up by the thrust upwards of the tooth. Those that are highest, being of oldest formation, will be most oblique, and when the tooth is quite developed some fibres will be seen at that level that have a cross direction, and are even oblique in the contrary direction. This was already observed on the adult subject by Malassez.

Destruction of the Root of the Milk Tooth.—This occurs by simple ostitis. The ligament of the milk tooth has the same fate and disappears.

Mechanism of the Growth of the Second Tooth.—Nearly all the soft and hard parts that were above the inferior *cul-de-sac* of the enamel organ, from the point where the root begins to form, have been seen to disappear; it would therefore be more exact to say that the tooth grows more by the lowering of the gingival border than from its own thrust upwards. But it is to be remembered that there is another parallel mode of progression caused by the development of the root. A third factor is represented by the development of the jaw itself; development which takes place more particularly on the convex part of the bone covered by a thick perio-teum. This mode of development naturally pushes the young tooth upward.

M. Albarran, in conclusion, establishes the following propositions:

1st.—All that part of the maxillary comprised between the border of the alveole and the *cul-de-sac* of the enamel organ of the second tooth disappears by rarifying ostitis. The definitive alveole is there-

fore entirely of new formation, its development going on at the same time as that of the root.

2d.—The alveolo-dental ligament, the formation of which is contemporaneous with that of the root and of the alveole, is independent of the sides of the follicle. This ligament proceeds from that portion of conjunctive tissue that has not been transformed into bone or cement. The obliquity of the fibres of the ligament is caused by the upward thrust of the root and corresponds to its height.

3d.—The root of the milk tooth is destroyed by simple ostitis.

4th.—The second tooth grows, because: (*a*) the soft and hard parts situated above the root are destroyed and disappear; (*b*) the root grows; (*c*) the jaw is developed principally by its lower border.

5th.—There exists in man, independently of a certain number of epithelial debris, disseminated and of minor importance, a voluminous epithelial mass, situated behind the second tooth and proceeding probably from the epithelial cord of this tooth, and which mass appears to represent an atrophied organ, corresponding to a third row of teeth.

MM. Motte and Protopopoff have lately made some remarkable experiments at the laboratory of Professor Kostiourine, at Kharkoff, on wolf's rabies. Having obtained a wolf, aged one year, they inoculated him with an emulsion of the medulla of a dog that had died of street rabies, and, at the same time, they inoculated the same quantity of rabic virus on a dog. This last animal remained in perfect health, whereas, twelve days and four hours after the inoculation, the wolf fell ill and died two days afterwards, presenting all the symptoms of paralytic rabies; the autopsy was performed half an hour after death. Several dogs and rabbits were then inoculated with the medulla of the wolf, and they generally died after the usual period of incubation of canine rabies. The virulence of the rabic principle of the dog is, therefore, not modified by its passage into the organism of the wolf—and this confirms M. Pasteur's opinion ("Comptes-rendus," 1886) that the rabic virus is identical in both animals. The authors now continued their inoculations. A first rabbit was inoculated by trephining, with the medulla of the wolf; it shortly became rabid and died, and a second rabbit was inoculated with its medulla, a third with that of the second, and so on. The fifth rabbit died in less than twenty-four hours, with a marked acceleration of the symptoms of paralytic rabies. A sixth rabbit was inoculated with medulla from the fifth and died in twenty-four hours, after rapid paralysis of the posterior extremity aud without elevation of temperature. In making an autopsy on the sixth rabbit there was found in the meninges an abundant milky liquid, in which microscopic examinations revealed the presence of innumerable microbes, in form of extremely fine, short *batonnets*. There were hardly any lymphatic corpuscules in the liquid which might be considered as a pure culture of the microbe. Continuing their experiments, the authors observed that all the parts of the central

nervous system possessed the same virulent properties. All the rabbits inoculated with medulla, diluted in sterilized bouillon, died in twelve hours, with the same symptons as the others; the same liquid was found in their brain, with the same *batonnets*. Their blood also contained the same microbes, but in lesser quantity, and its inoculation was also fatal, though less rapidly.

MM. Motte and Protopopoff propose shortly to publish the result of their researches on the microbe they have discovered. This microbe, in pure cultures in bouillon, is very active, killing rabbits in twelve hours, with all the symptoms of paralytic rabies. In confirmation of these facts, shortly afterwards three moudjiks came to Kharkoff for treatment, having been bitten by a mad wolf. The animal had been killed and buried. Five days afterwards it was disinterred, an autopsy performed, and a dog and a rabbit were inoculated by trephining with some of the medulla. Seven days afterwards the rabbit died of paralytic rabies, and the same micro-organisms were found in its medulla. The authors expect to be able to prove that these microbes exist in all cases of inoculation of the rabic virus of the wolf.

In the "Journal des Connaissances" of August 11th, there appears a second note from Dr. Galippe on "The Presence of Micro-organisms in Vegetable Tissue," of which the following is a summary: Dr. Galippe says that after the publication of his first paper on this subject, he received a number of objections from different quarters, the principal of which were the following: That the histological structure of vegetables was opposed to the entry of micro-organisms. The answer to this is that the experiments of Dr. Galippe, made with care, prove exactly the contrary. Other objections, purely theoretical, it is not necessary to further allude to. The most serious objection was that it was possible that the micro-organisms discovered in vegetables by Dr. Galippe had perhaps penetrated by the wound caused by the knife in cutting them, and again was he sure that he had not, during the different manipulations required for his cultures, introduced into his tubes micro-organisms from the atmosphere? In order to reply conclusively to this last objection and to determine the proportion of error possible in these experiments, the doctor made cultures in a certain number of tubes containing the culture liquids he usually employs, together with inorganic bodies (pummice stone) sterilized by heat. He experimented on seventy-nine tubes, into a large number of which he introduced several fragments of pummice stone. He was thus obliged to open the phial containing these fragments more than one hundred and sixty times during the course of his experiment. This was on the 19th of July, and not a single tube has become fertile. The chance of introduction of micro-organisms is therefore very slight indeed. As to the danger of introduction through the wound caused by the knife in cutting the vegetable before hand (by servant or gardener), Dr. Gallipe insured absolute security by having the vegetables dug

up before him, care being taken not to damage the root; they were then carried directly to his laboratory, cleared of earthy matter and at once submitted to experiment.

The following are the results of his experiments: 1, Cauliflower. From July 30th three series of tubes were fertilized. They are saliva sweetened and peptonized; beef extract sweetened and peptonized; saliva sweetened, peptonized and neutralized; beef extract sweetened, peptonized and neutralized. Ordinary beef extract has remained sterile up to the present day, August 11th. Proportion 8 in 10. 2, Common cabbage. From July 30th most of the tubes appear fertile. Shortly afterwards all the tubes cultivated had given positive results. These two series of experiments prove that the micro organisms discovered by Dr. Galippe in the cabbage really exist normally in the plant during its life-time. With a cauliflower purchased under ordinary conditions, a great number of tubes were fertile, 7 in 10. Red radishes, in two series of experiments also gave positive results; in one case 8 tubes in 10 were fertile; in the other all the tubes were fertile. The black radish also gave positive results in two series of experiments. In the first, July 5th, black radishes purchased under ordinary conditions were submitted to experiment. Already on July 7th most of the tubes appeared fertile. Among them may be mentioned the saliva sweetened, peptonized and neutralized; saliva sweetened and peptonized, and beef extract sweetened, peptonized and neutralized. The second series, July 28th, gave also satisfactory results with black radishes dug up before the doctor. On August 1st all the tubes were fertile. Dr. Galippe closes by maintaining the conclusions of his first note, but continues his reserve with regard to the mode of penetration of the microbes, as well as to the part they may have to play in the economy of the vegetable tissues.

At a recent meeting of the Académie de Medecine, M. Schutzenberger presented a note from MM. Hardy and Calmels "On the Composition and Synthesis of Pilocarpine." Pilocarpine is an alkaloid found in the "Pilocarpus Pinnatus" (Jaborandi). It was first obtained in 1875 by M. Hardy from leaves of that plant. It is a viscid matter that gives well crystalized salts numerously applied in therapeutics. Pilocarpine is transformed into pilocarpic acid by absorption of one molecule of water. It changes into pilocarpidine by the loss of methylic alcohol, and into pyridino-lactic acid by disengagement of trimethylamine. These reactions show that it is at once pyridine, alanine and betaine. It is reproduced by synthesis starting from pyridino-lactic acid, which takes place in two phases: 1st, transformation of pyridino-lactic acid in pilocarpidine; 2d, by transformation of pilocarpidine into pilocarpine. The physiological properties of synthetical pilocarpine are the same as those of natural pilocarpine. Injected into the internal saphena vein of a dog, it produces a considerable flow of saliva, as may be shown by placing a canula in the excretory canal of the sub-maxillary gland of a dog;

also, a few drops, poured upon the heart, previously exposed, of a frog, stop the movements, which reappear under the influence of a few drops of atropine.

PARIS, Oct. 1st, 1887.

BERLIN.

The Surgical Institute—Aseptic Operations—A New Antiseptic—Chloroform the Anæsthetic—Iodine injections in Struma.

According to promise, I take pleasure in reporting to you some observations, pertaining to the study of medicine and surgery, that I have made during my present stay in this city. As up to date I have principally occupied myself with the study of surgery, I shall in this letter refer only to that subject.

In the absence of Prof. Bergmann (successor of Langenbeck), Director of the Surgical Institute, I called immediately after my arrival on Dr. Fehleisen, his first assistant, who received me very kindly and permitted me to attend the daily policlinic held at the Institute. The clinic commences every morning at ten o'clock, and lasts till about two P. M. During these hours from 200 to 300 patients are attended. Minor cases, and such as have been previously in attendance, are disposed of at once. Cases of importance, in which operations have to be performed, are retained till the close of the hours. The larger operations are performed by Dr. Fehleisen himself, the smaller ones are distributed, to be attended to, among the students and practicants.

The method of operating followed in the Institute is called aseptic, in contra-distinction to antiseptic. By the former method, it is supposed that the septic germs are prevented from the beginning from coming in contact with the wound; by the latter, that they do obtain admittance, but are destroyed by the disinfectants in use. The great faith that we have in disinfectants does not here prevail; they believe much more in the prevention of sepsis than in remedying it after it has set in. The bichloride of mercury in solution is recognized as one of the best germicidal agents known, and is in general use here; yet, on account of its inability to affect septic germs in albumenous liquids—blood, serum, etc.—and owing to its instability, as it readily decomposes, it is not considered infallible and the search for new and better germicides has not yet ceased. At the present time experiments are made here in this, and also in the Hygienic Institute by a Doctor Laplace (an American) with an acid solution of the bichloride of mercury, an invention of his own, the results of which are not yet published. It is expected of this liquid, on account of its acid reaction and chemical composition, that it will be active in the presence of albumen. In operating, the greatest cleanliness is observed everywhere and in everything. The operating rooms are large, airy, with hard finished walls and cemented floors with a drain in the centre, so that, after the clinic

is over, they can be washed out thoroughly. All bandages and material used for dressing are thoroughly sterilized by heat, then nicely arranged on tables in each room and no one even touches anything with his fingers. All instruments that are used are left continually submerged in a three per cent. solution of carbolic acid. Sponges are not used at all, but instead, small pieces of disinfected gauze. For ligatures and sutures, even the finest, catgut is exclusively used; it is kept in an alcoholic solution of bichloride of mercury. Before the operation commences the operator, as well as the assistants, disinfect their hands thoroughly. The part to be operated on is also thoroughly washed with water, soap, and finally the bichloride solution. In operating, the loss of blood is, as much as possible, avoided, either by circular or digital compression, even for such a small operation as ingrowing toe nail Esmarch's bandage would be applied. I witnessed a beautifully performed operation for harelip, where, in consequence of digital compression, the assistant holding both lips with his fingers close to the corner of the mouth, hardly a drop of blood was lost. The material used for dressing does not essentially differ from what we employ in Sacramento. Iodoform, disinfected gauze, gauze bandages, cotton, jute, three per cent. carbolic acid solution and one-half per cent. sublimate solution. The sublimate solution is used principally by means of an irrigator. Powdered iodoform is used freely with every dressing. For disinfecting deep wounds, after removal, for instance, of a tumor, the cavity is washed with a saturated solution (about fifteen per cent.) of iodoform in ether.

The only anæsthetic employed, not only in this but also in all other hospitals of Berlin is chloroform. Accidents have already happened from its use, but they occur so seldom that they are entirely overlooked. They have been very successful in this clinic with the treatment of struma by injecting with a hypodermic syringe, once weekly, about fifteen drops of tincture of iodine directly into the tumor. A large number of cases come every Wednesday to the clinic for such treatment.

A. E. BRUNE.

BERLIN, September 28th, 1887.

BOOKS AND PAMPHLETS RECEIVED.

The Physician's Leisure Library for 1886. 12 numbers. Nos. 1 to 4 for 1887. Detroit: Geo. S. Davis.

This series of publications presents a unique departure in medical literature. It is an attempt by the publisher to issue a number of popular works by well known authors at a figure which must enable every practitioner to possess them. A further accommodation is provided in the fact that any one volume can be purchased separately, a feature distinguishing the "Leisure Library" from more expensive publications of a similar character. The volumes are broad octavo size, printed on heavy calendered paper, with wide margins.

The typography is clear and distinct. They are bound in paper covers, lithographed. The price for the series of twelve numbers is $2.50; single copies 25 cents. In cloth $5.00; 50 cents.

For all practical purposes the cheaper form is sufficient, and it is safe to say that the same value cannot be elsewhere obtained for a like investment. The numbers so far issued for 1887 fully maintain the high standard of the series. The general style of the work is similar, with the exception that the pages are printed in brown ink, an innovation which very much detracts from the otherwise fine appearance of the work.

In subsequent numbers we will notice the volumes separately. The series published to date comprises—1886: Inhalers, Inhalations and Inhalants, Beverley Robinson. The Use of Electricity in the Removal of Superfluous Hair and the Treatment of various Facial Blemishes, Fox. The Modern Treatment of Ear Diseases, Sexton. Spinal Irritation, Hammond. The Modern Treatment of Eczema, Piffard. Antiseptic Midwifery, Garrigues. On the Determination of the Necessity for Wearing Glasses, St. John Roosa. The Physiological, Pathological and Therapeutic Effects of Compressed Air, Smith. Granular Lids and Contagious Ophthalmia, Mittendorf. Practical Bacteriology, Satterthwaite. Pregnancy, Parturition and the Puerperal State and their Complications, Mundé. 1887: Diagnosis and Treatment of Hæmorrhoids, Kelsey. Diseases of the Heart, Vols. I and II, Dujardin-Beaumetz. Modern Treatment of Diarrhœa and Dysentery, Palmer.

The Physician's Perfect Call-Book and Record. By Dr. G. Archie Stockwell, F. Z. S. Detroit: Geo. S. Davis.

This is a new pocket calendar, arranged upon a plan of its own, and adapted for thirty-two patients upon each page. It is a very convenient memorandum book, thoroughly practical and useful, of handy form and size, well made, and its typography is excellent. It will be a useful companion to the practitioner..

The Modern Treatment of Ear Diseases. By Samuel Sexton, M. D., Surgeon New York Eye and Ear Infirmary. "Physician's Leisure Library" Series. Detroit: Geo. S. Davis.

This little work contains much useful information, in a concise and accessible form. For the busy, general practitioner, who has not the time to study the more exhaustive treatises on otology, but who is often compelled to treat ear troubles, it is particularly useful. The author has much faith in constitutional treatment in aural troubles. He seems to place especial confidence in calcium sulphide, which he gives in doses of from $\frac{1}{30}$ to $\frac{1}{20}$ of a grain every two hours, where there is a tendency to the formation of pus, either from mucous, skin or cellular tissue. In a series of 2100 hospital cases which the author has classified, there were 555 cases of chronic catarrhal nflammation of the middle ear, and his treatment and prognosis in his very obstinate disease is somewhat surprising. The treatment
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consists in administration of from $\frac{1}{50}$ to $\frac{1}{10}$ of a grain of mercury three or four times daily for a long period, systematic removal of secretion from naso-pharynx when necessary, and the use of soothing applications to the mucous membrane of the upper air passage. Hypertrophied tonsils and dead teeth are removed. He says: "The above treatment was often successful, and while it may not always eradicate the disease, we may certainly arrest its further progress." We believe that in this affection there is at present no method of treatment which will justify so hopeful an opinion.

Inhalers, Inhalations and Inhalants. By Beverley Rcbinson, M. D., Clinical Professor of Medicine at the Bellevue Hospital Medical College, N. Y. "Physician's Leisure Library" Series. Detroit: Geo. S. Davis.

The large experience of the author in treating throat and nasal diseases, has enabled him to give much sound and practical information to those who have not the benefit of extensive clinical practice. The work contains a description of most of the modern instruments for the administration of sprays, steam inhalations, etc., with the preparations best adapted to treatment of disease by this method.

Santa Clara County, California. Vol. 1, No. 1. San Francisco: W. B. Bancroft & Co.

This is a handsome number of 93 pages, profusely illustrated and descriptive of Santa Clara and its environs. Amongst the articles is one on the Climatology of San Jose and the Santa Clara Valley, by W. S. Thorne, M. D., which presents much valuable information in an interesting manner. The work will be issued quarterly under the auspices of the Board of Trade of San Jose, which is to be congratulated on its very commendable enterprise.

Transactions of the New York Academy of Medicine. Vols. IV and V.

The Physician's Visiting List (thirty-seventh year) for 1888. Philadelphia: P. Blakiston, Son & Co.

The Visiting List is substantially bound in leather, wallet form, with pocket and tuck, measuring $6\frac{1}{8}$ x $3\frac{7}{8}$ inches. It is arranged for 25 to 100 patients per day or week. It comprises the usual visiting list, memoranda, obstetrical record, and cash account, arranged in a compact manner, a dose table, list of new remedies, etc. Two very useful notes on examination of the urine, by Judson Daland, and on Incompatability, by S. O. L. Potter, are includèd.

Sexual Impotence. By Wm. A. Hammond, M. D., Surgeon-General U. S. Army (retired list). Professor of Diseases of the Mind and Nervous System in the New York Post-graduate Medical School and Hospital, etc. Detroit: Geo. S. Davis. 303 pp.

A second edition of this well known work has been called for and recently issued. It includes a chapter on impotence in the female,

which is a valuable addition to the original work. With this exception there are few alterations. It is apparent that with his increased experience the author relies mainly on psychical influences in the treatment of sexual impotence, and in this department he is certainly an adept. His varied resources have been taxed to their utmost in dealing with cases of this character, and in this work he embodies the best results, after years of successful experimentation. The descriptions of cases are interesting, the diagnoses clear, and the treatment very minutely described, while the results testify to the success of the method employed. The work is essentially practical in its character, and will be found a useful guide in the treatment of this unfortunate condition.

Licentiates of the Board of Examiners.

At the regular meeting of the Board of Examiners held October 5, 1887, the following physicians were granted certificates to practise medicine and surgery in this State:

John N. Baylis, San Bernardino, Univ. of Penn., Mar. 1, '86.
Christian Bernhard, Visalia, Kansas City M. Coll., Mo., Mar. 4, '84.
Charles Virgil Bogue, Los Angeles, Rush M. Coll. Ill., Feb. 19, '84.
Albert C. Bowerman, Modesto, Univ. Toronto, Canada, June 8, '76.
James M. Embry, Pomona, Univ. Louisville, Ky., Mar. 1, '70.
William Farris, San Francisco, Coll. Phys. and Surgs., Republic of Iowa, Iowa, Feb. 25, '79.
Newell K. Foster, Oakland, Long Island Coll. Hosp. N. Y., June 28, '78.
William M. Gough, Los Angeles, Med. Dept. Univ. of Louisville, Mar. —, '48.
Herman E. Hasse, Los Angeles, Julius Maximilian Univ. Bavaria, Jan. 19, '61.
Thad. W. Helm, Pomona, Missouri M. Coll., Mo., Mar. 2, '86.
Albert Maldonado, San Francisco, Bellevue Hospital M. Coll., N. Y., Mar. 14, '87.
Thomas Franklin McGee, Azusa, Missouri M. Coll. Mo., Mar. 4, '84.
Lorenzo Northrup, San Diego, Rush M. Coll., Ill., Feb. 3, '69.
Luther Milton Powers, Los Angeles, Washington Univ. School of Medicine, Md., Feb. 22, '77.
John L. D. Roberts, Monterey, Univ. City of New York, Mar. 6, '85.
David F. Rupp, San Diego, Kansas City Coll. of Phys. and Surgs., Mar. 4, '79.
Asbury J. Russell, Oakland, Univ. of Wooster, Ohio, Feb. 27, '68.
John Innes-Stephen, San Francisco, King and Queen's Coll. of Phys. Ireland, July 23, '86.
Hayward Glazier Thomas, Concord, Jefferson M. Coll. Phila., Penn., April 5, '87.

WM. M. LAWLOR, Secretary.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT OF THE U. S. ARMY (DIVISION OF THE PACIFIC), FROM SEPT. 20 TO OCT. 20, 1887.

Major P. J. A. Cleary, Surgeon, will proceed from Fort Huachuca to Fort McDowell, A. T., and report to the commanding officer for duty as Post Surgeon. S. O. No. 111, Dept. Arizona, October 18, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS, U. S. NAVY (PACIFIC STATION), FROM SEPT. 20 TO OCT. 20, 1887.

October 6th: Ernest L. Norfleet, P. A. Surgeon, detached from duty at Naval Hospital, Mare Island, and ordered to Insane Asylum, Washington, D. C., in charge of twelve insane patients.

October 11th: Surgeon Henry P. Harvey sailed from San Francisco for Honolulu, H. I., to report for duty on board the U. S. S. "Mohican," as the relief of Surgeon S. H. Cooke.

Public Health.

Reports from Cities on the Pacific Coast of 10,000 inhabitants and upwards, for the Month of September, 1887.

Cities.	Population.	Annual Rate per 1000 for the month.	Total Deaths.	Zymotic Diseases.	Constitutional Diseases.	Local Diseases.	Developmental Diseases.	Violent Deaths.	Natural Causes.	Unclassified.
Los Angeles.....	60,000	9.40	47	5	9	9	3	3	...	18
Oakland.....	50,000	11.28	47	10	7	26	1	3	....	....
Sacramento	30,000	10.80	27	2	5	9	3	3	....	5
San Francisco.....	280,000	18.30	427	67	58	192	35	31	....	44
San Jose.....	20,000	16.20	27	10	6	8	1	....	1	1
Stockton.....	15,000	10.40	13	4	....	7	1	1	....	....

Meteorological Summary for the Month of September, 1887.

Stations.		Temperature.				Rainfall.			Weather.			Wind.	Furnished by.
		Highest.	Lowest.	Mean.	Mean daily Range.	No. days Rain fell	Total Rainfall.	Mean relative humid'y.	No. of Days Clear.	Fair.	Cl'dy.	Prevailing direction	
Auburn,	Cal	98	38	71.0	——	—	1.09	—	—	—	—	W.	South. Pac. Co.
Colfax,	"	98	48	69.0	——	—	.68	—	—	—	—	N.	" "
Eureka,	"	——	——	——	——	—	—	—	—	—	—	——	
Los Angeles,	"	91.0	49.2	68.2	24.4	1	.18	82.0	15	12	3	W.	Sig. Ser. U.S.A.
Monterey,	"	83	50	62.6	——	—	.25	—	—	—	—	N. E.	" "
Oakland,	"	82	48	60.68	15.23	2	.27	89.83	22	5	3	SW. W	J. B. Trembley.
Paso Robles,	"	100	48	69.3	——	—	.00	—	—	—	—	S.	South. Pac. Co.
Red Bluff,	"	101.3	48.5	76.4	29.9	3	.06	32.5	23	6	1	N.	Sig. Ser. U.S.A.
Sacramento,	"	100	45.7	70.4	31.0	1	.02	53.3	23	7	0	N. W.	" "
San Diego,	"	79.4	58.0	65.7	9.5	1	T*	83.7	5	22	3	N. W.	" "
San Francisco,	"	89.0	49.9	60.4	17.2	5	29	75.0	17	11	2	W.	" "
Santa Barbara,	"	81.2	51	66	15.6	1	.38	—	24	4	2	W.	Hugh D. Vail.
Santa Cruz,	"	91	45	65.1	——	—	.42	—	—	—	—	S.	South. Pac. Co.

Dash (——) indicates reports missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10.
Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

* T trace of rain.